

WHAT IS CLAIMED IS:

1. An image display element, comprising:
  - a plurality of data lines to which display signals are applied, the data lines being embedded in a substrate;
  - 5 a plurality of scan lines to which scan signals are applied, the scan lines being embedded in the substrate;
  - a first wire having a surface which is exposed, the first wire being electrically connected to one of the scan lines; and
  - a second wire having a surface which is exposed, wherein a
  - 10 distance between the first wire and the second wire is more than or equal to 5 $\mu$ m.
2. The image display element according to claim 1, wherein
  - a potential of the second wire is substantially equal to a
  - 15 potential of a scan line other than the one scan line.
3. The image display element according to claim 1, further comprising:
  - a first pixel electrode and a second pixel electrode that are
  - 20 supplied with display signals from one of the data lines;
  - a first switching device that controls a supply of the display signal in the one data line, wherein the first switching device is electrically connected between the one data line and the first pixel electrode and that has a gate electrode;
  - 25 a second switching device that is electrically connected between

the gate electrode of the first switching device and one scan line; and  
a third switching device that is connected to the one data line  
and that controls a supply of the display signal to the second pixel  
electrode.

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4. An image display element, comprising:

a plurality of data lines to which display signals are applied, the  
data lines being embedded in a substrate;

a plurality of scan lines to which scan signals are applied, the  
10 scan lines being embedded in the substrate;

a first wire having a surface which is exposed, the first wire  
being electrically connected to one of the scan lines;

a second wire having a surface which is exposed, the second  
wire being arranged in the vicinity of the first wire; and

15 an insulator that is arranged to cover the surface of at least one  
of the first and second wires.

5. The image display element according to claim 4, wherein

a potential of the second wire is substantially equal to a  
20 potential of a scan line other than the one scan line.

6. The image display element according to claim 4, further  
comprising:

a counter substrate that is disposed opposite to the substrate,  
25 with a distance from the substrate, wherein

the insulator is a spacer that prescribes the distance.

7. The image display element according to claim 4, wherein  
the insulator is a light-shield film that has a light transmission  
5 area.

8. The image display element according to claim 4, further  
comprising:

a first pixel electrode and a second pixel electrode that are  
10 supplied with display signals from one of the data lines;

a first switching device that controls a supply of the display  
signal in the one data line, wherein the first switching device is  
electrically connected between the one data line and the first pixel  
electrode and that has a gate electrode;

15 a second switching device that is electrically connected between  
the gate electrode of the first switching device and one scan line; and  
a third switching device that is connected to the one data line  
and that controls a supply of the display signal to the second pixel  
electrode.

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9. An image display element, comprising:

a first substrate;

a plurality of data lines to which display signals are applied, the  
data lines being embedded in the first substrate;

25 a plurality of scan lines to which scan signals are applied, the

scan lines being embedded in the first substrate;

a wire having a surface which is exposed, the wire being electrically connected to one of the scan lines;

a second substrate that is arranged opposite to the first substrate, with a distance from the first substrate; and

a spacer that is mounted on any one of the first substrate and the lower surface of the second substrate, with a distance of at least 5 $\mu$ m from the wire, and that prescribes a distance between the first substrate and the second substrate.

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10. The image display element according to claim 9, wherein the spacer is arranged on a light-shield area.

11. The image display element according to claim 9, wherein

15 the spacer is arranged on a light-shield area, at a position with a largest distance from the wire.

12. The image display element according to claim 9, further comprising:

20 a first pixel electrode and a second pixel electrode that are supplied with display signals from one of the data lines;

a first switching device that controls a supply of the display signal in the one data line, wherein the first switching device is electrically connected between the one data line and the first pixel

25 electrode and that has a gate electrode;

a second switching device that is electrically connected between the gate electrode of the first switching device and one scan line; and

a third switching device that is connected to the one data line and that controls a supply of the display signal to the second pixel  
5 electrode.

13. An image display device, comprising:

a data line driving circuit that supplies a display signal to a plurality of data lines;

10 a scan line driving circuit that supplies a scan signal to a plurality of scan lines;

a first wire having a surface which is exposed, the first wire being electrically connected to one of the scan lines; and

a second wire having a surface which is exposed, wherein a  
15 distance between the first wire and the second wire is more than or equal to 5 $\mu$ m.

14. The image display device according to claim 13, wherein

a potential of the second wire is substantially equal to a  
20 potential of a scan line other than the one scan line.

15. The image display device according to claim 13, further comprising:

a first pixel electrode and a second pixel electrode that are  
25 supplied with a display signal from a same data line;

a first switching device that controls the supply of the display signal from the data line to the first pixel electrode, and that is driven based on a scan signal supplied from a first scan line;

5 a second switching device that controls a supply of the display signal from the data line to the second pixel electrode, and that is driven based on a scan signal supplied from a second scan line subsequent to the first scan line; and

a third switching device that is driven based on the scan signal supplied from the first scan line, and that controls ON and OFF of the  
10 second switching device.

16. An image display device, comprising:

a data line driving circuit that supplies a display signal to a plurality of data lines;

15 a scan line driving circuit that supplies a scan signal to a plurality of scan lines;

a first wire having a surface which is exposed, the first wire being electrically connected to one of the scan lines;

a second wire having a surface which is exposed, the second  
20 wire being arranged in the vicinity of the first wire; and

an insulator that is arranged to cover the surface of at least one of the first and second wires.

17. The image display device according to claim 16, wherein  
a potential of the second wire is substantially equal to a  
potential of a scan line other than the one scan line.

5 18. The image display device according to claim 16, further  
comprising:

a first pixel electrode and a second pixel electrode that are  
supplied with a display signal from a same data line;

a first switching device that controls the supply of the display  
10 signal from the data line to the first pixel electrode, and that is driven  
based on a scan signal supplied from a first scan line;

a second switching device that controls a supply of the display  
signal from the data line to the second pixel electrode, and that is  
driven based on a scan signal supplied from a second scan line

15 subsequent to the first scan line; and

a third switching device that is driven based on the scan signal  
supplied from the first scan line, and that controls ON and OFF of the  
second switching device.

20 19. An image display device, comprising:

a data line driving circuit that supplies a display signal to a  
plurality of data lines;

a scan line driving circuit that supplies a scan signal to a  
plurality of scan lines;

25 a first substrate;

a plurality of data lines to which display signals are applied, the data lines being embedded in the first substrate;

a plurality of scan lines to which scan signals are applied, the scan lines being embedded in the first substrate;

5 a wire having a surface which is exposed, the wire being electrically connected to one of the scan lines;

a second substrate that is arranged opposite to the first substrate, with a distance from the first substrate; and

a spacer that is mounted on any one of the first substrate and  
10 the lower surface of the second substrate, with a distance of at least 5 $\mu$ m from the wire, and that prescribes a distance between the first substrate and the second substrate.

20. The image display device according to claim 19, further  
15 comprising:

a first pixel electrode and a second pixel electrode that are supplied with a display signal from a same data line;

a first switching device that controls the supply of the display signal from the data line to the first pixel electrode, and that is driven  
20 based on a scan signal supplied from a first scan line;

a second switching device that controls a supply of the display signal from the data line to the second pixel electrode, and that is driven based on a scan signal supplied from a second scan line subsequent to the first scan line; and

25 a third switching device that is driven based on the scan signal



supplied from the first scan line, and that controls ON and OFF of the second switching device.